

Title (en)

SYSTEM AND METHOD FOR MEASURING TREAD DEPTH OF A PNEUMATIC TYRE

Title (de)

SYSTEM UND VERFAHREN ZUR MESSUNG DER PROFILTIEFE EINES LUFTREIFENS

Title (fr)

SYSTÈME ET PROCÉDÉ DE MESURE DE PROFONDEUR DE BANDE DE ROULEMENT D'UN PNEUMATIQUE

Publication

**EP 3915810 B1 20231122 (EN)**

Application

**EP 20465530 A 20200529**

Priority

EP 20465530 A 20200529

Abstract (en)

[origin: EP3915810A1] A system (8) for measuring tread depth of a pneumatic tyre is provided. The system (8) comprises a sensor element comprising a magnetic inlay (9) that is sized and shaped to be embedded in the tyre (1) and to have an outer surface (10) that is part of a rolling surface (4) of the tyre (1). The system (8) also comprises a first coil (11) having a first inductance, a second coil (12) having a second inductance, wherein the first inductance is different from the second inductance and the first inductance and the second inductance are dependent at least in part on the size of the magnetic inlay (9), an inductance measuring circuit (15) for measuring the first inductance of the first coil (11) and the second inductance of the second coil (12), wherein wear of the magnetic inlay (9) causes a change in the value of the measured first inductance and measured second inductance, the change being indicative of wear of the tread depth of the tyre (1), means to calculate the ratio of the values of the measured first inductance and of the second inductance (16), and a transmitter (17) for transmitting one or more output values that are representative of the measured first inductance and/or the measured second inductance and/or the ratio of the measured first inductance and the measured second inductance.

IPC 8 full level

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